7. LAMPIRAN

Lampiran 1. Gambar Perbandingan Tepung Ubi dengan Tepung Kunci

Lampiran 2. SNI Roti Manis 01-3840-1995

Kriteria Uji	Satuan	Persyaratan
1. Keadaan		
Kenampakan	-	Normal tak berjamur
Bau	-	Normal
Rasa	-	normal
2. Air	% b/b	maximal 40
3. Abu (tak termasuk garam)	%b/b	maximal 1
4. Abu yang tak larut dalam asam	%b/b	maximal 3,0
5. NaCl	% b/b	Maximal 2,5
6. Gula	% b/b	-
7. Lemak	% b/b	-
8. Serangga	% b/b	tidak boleh ada
9. Bahan tambahan makanan		
Pengawet	Sesuai dengan SNI 0222-1967	
Pewarna		
Pemanis Buatan		
Natrium Siklamat		Negatif
10. Cemaran Logam	mg/kg	Maximal 0,05
Raksa	mg/kg	Maximal 1,0
Timbel	mg/kg	Maximal 10,0
Tembaga	mg/kg	Maximal 40,0
Seng		
11. Cemaran mikroba		
Angka lempeng total	koloni/g	Maximal 10^6
E.Coli	APM/g	< 3
Kapang	Koloni/g	maximal 10^4

Sumber Badan Standarisasi Nasional 2000

Lampiran 3. Kurva Standart

3.1. Kurva Standart Betakaroten

diambil sebanyak 10 ml dan diencerkan hingga 100 ml dalam labu takar (100 ppm). Dari larutan tersebut, diambil:

100 ppm= diambil 8 ml + 2 ml aquabides

80 ppm = diambil 6 ml + 4 ml aquabides

40 ppm = diambil 4 ml + 6 ml aquabides

20 ppm = diambil 2 ml + 8 ml aquabides

10 ppm = diambil 1 ml + 9 ml aquabides

5 ppm = diambil 0,5 ml + 9.5 ml aquabides

2.5 ppm= diambil 0,25 ml + 9,75 aquabides

Dari masing-masing larutan tersebut, kemudian diambil sebanyak masing-masing 1 ml dan ditambah 5 ml pereaksi anthrone. Selanjutnya, dilakukan pengukuran absorbansi dengan panjang gelombang 630 nm.

3.2. Kurva Standar Betakaroten

Sebanyak 25 mg betakaroten murni diambil dan ditambah dengan 2 ml eter dalam labu takar 25 ml. Setelah itu, ditambah dengan aseton 9 % dalam heksana hingga batas tanda tera. Dari larutan tersebut diambil sebanyak 10 ml dan diencerkan hingga 100 ml (100 ppm) dalam labu takar dengan menggunakan aseton 9% dalam heksana. Kemudian dari larutan tadi dibuat konsentrasi:

50 ppm= diambil 5 ml + 5 ml aseton 9% dalam heksana

25 ppm= diambil 2,5 ml + 7,5 ml aseton 9% dalam heksana

12,5 ppm= diambil 1,25 ml + 8,75 ml aseton 9% dalam heksana

6,25 ppm= diambil 0,625 ml + 9,375 ml aseton 9% dalam heksana

3,125 ppm= diambil 0,3125 ml + 9,6875 ml aseton 9% dalam heksana

1,5625 ppm= diambil 0,15625 ml + 9,84375 ml aseton 9% dalam heksana

0,78125 ppm= diambil 0.078125 ml + 9,921875 ml aseton 9% dalam heksana

Selanjutnya dilakukan pengukuran absorbansi terhadap masing-masing konsentrasi dengan panjang gelombang 436 nm.

Lampiran 4. Uji Normalitas pada Tepung, Adonan, dan *Sponge cake*

Tests of Normality Tepung

	Kolmogorov-Smirnov(a)			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
beta	.277	5	.200(*)	.847	5	.184
antioksidan	.252	5	.200(*)	.888	5	.349
gula	.297	5	.172	.866	5	.252

* This is a lower bound of the true significance.
a Lilliefors Significance Correction

Tests of Normality Adonan

	Kolmogorov-Smirnov(a)			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
betakaroten	.143	20	.200(*)	.926	20	.130
antioksidan	.121	20	.200(*)	.950	20	.371

* This is a lower bound of the true significance.
a Lilliefors Significance Correction

Tests of Normality *Sponge cake*

	Kolmogorov-Smirnov(a)			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
betakaroten	.197	20	.040	.882	20	.019
antioksidan	.133	20	.200(*)	.941	20	.248
gula	.147	20	.200(*)	.937	20	.215
HARDNESS	.242	20	.003	.847	20	.005
COHESSIVENES	.170	20	.133	.902	20	.045
SPRINGINESS	.195	20	.045	.879	20	.017
CHEWINESS	.143	20	.200(*)	.914	20	.076
L	.305	20	.000	.747	20	.000
b	.248	20	.002	.824	20	.002
vol	.154	20	.200(*)	.891	20	.028
bakingloss	.257	20	.001	.828	20	.002

* This is a lower bound of the true significance.
a Lilliefors Significance Correction

```
FREQUENCY ANALYSIS - KOLMOGOROV-SMIRNOV TEST
May 26, 2012   2:47:48 pm
Using: X:\COSTAT\MONIC_~1.DT
Parameter:\beta-karoten
Normal distribution

   D obs = 0.1309164954
   n =20
Test of an intrinsic hypothesis: 0.95
FREQUENCY ANALYSIS - KOLMOGOROV-SMIRNOV TEST
May 26, 2012   2:48:09 pm
Using: X:\COSTAT\MONIC_~1.DT
Parameter:\Ltrans
```

Normal distribution

D obs = 0.051950851
n =20

Test of an intrinsic hypothesis: 0.95

FREQUENCY ANALYSIS - KOLMOGOROV-SMIRNOV TEST
May 26, 2012 2:48:33 pm
Using: X:\COSTAT\MONIC_~1.DT
Parameter:\btrans
Normal distribution

D obs = 0.1041466879
n =20

Test of an intrinsic hypothesis: 0.95

FREQUENCY ANALYSIS - KOLMOGOROV-SMIRNOV TEST
May 26, 2012 2:48:55 pm
Using: X:\COSTAT\MONIC_~1.DT
Parameter:\vol_pengemb
Normal distribution

D obs = 0.1151928038
n =20

Test of an intrinsic hypothesis: 0.95

FREQUENCY ANALYSIS - KOLMOGOROV-SMIRNOV TEST
May 26, 2012 2:49:23 pm
Using: X:\COSTAT\MONIC_~1.DT
Parameter:\bakinglosstrans
Normal distribution

D obs = 0.0673235401
n =20

Test of an intrinsic hypothesis: 0.95
FREQUENCY ANALYSIS - KOLMOGOROV-SMIRNOV TEST
May 26, 2012 2:49:42 pm
Using: X:\COSTAT\MONIC_~1.DT
Parameter:*HARDNESS*
Normal distribution

D obs = 0.1151479688
n =20

Test of an intrinsic hypothesis: 0.95

FREQUENCY ANALYSIS - KOLMOGOROV-SMIRNOV TEST
May 26, 2012 2:50:06 pm

Using: X:\COSTAT\MONIC_~1.DT
Parameter:\COHESSIVENES
Normal distribution

D obs = 0.1081091379
n =20

Test of an intrinsic hypothesis: 0.95

FREQUENCY ANALYSIS - KOLMOGOROV-SMIRNOV TEST
May 26, 2012 2:50:25 pm
Using: X:\COSTAT\MONIC_~1.DT
Parameter:*SPRINGINESS*
Normal distribution

D obs = 0.1176051695
n =20

Test of an intrinsic hypothesis: 0.95

Lampiran 5. Uji Duncan pada Adonan dan *Sponge cake*

Betakaroten_adonan

Duncan

perlakuan	N	Subset for alpha = .05			
		1	2	3	4
adonan 0%	5	14.1490			
adonan 15%	5		15.1614		
adonan 30%	5			16.0660	
adonan 45%	5				17.5952
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 5.000.

Antioksidan_adonan

Duncan

perlakuan	N	Subset for alpha = .05			
		1	2	3	4
adonan 0%	5	12.2696			
adonan 15%	5		14.3552		
adonan 30%	5			15.5172	
adonan 45%	5				17.7122
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 5.000.

betakaroten_*Cake*

Duncan

Perl	N	Subset			
		1	2	3	4
0%	5	6.5240			
15%	5		6.9580		
30%	5			7.8160	
45%	5				9.0600
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed. Based on Type III Sum of Squares The error term is Mean Square(Error) = .014.
a Uses Harmonic Mean Sample Size = 5.000.
b Alpha = .05.

antioksidan_ *Cake*

Duncan

Perl	N	Subset 1	2	3	4
0%	5	5.2820			
15%	5		6.7720		
30%	5			7.7620	
45%	5				9.2180
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed. Based on Type III Sum of Squares The error term is Mean Square(Error) = .062.
a Uses Harmonic Mean Sample Size = 5.000.
b Alpha = .05.

Gula_Cake

Duncan

Perlakuan	N	Subset for alpha = .05 1
4,00	5	20.9634
1,00	5	21.0058
3,00	5	21.0862
2,00	5	21.2104
Sig.		.071

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 5,000.

hardness_ Cake

Duncan

Perl	N	Subset 1	2	3	4
0%	5	128.3040			
15%	5		145.6640		
30%	5			202.2400	
45%	5				284.1580
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed. Based on Type III Sum of Squares The error term is Mean Square(Error) = 43.665.
a Uses Harmonic Mean Sample Size = 5.000.
b Alpha = .05.

cohesiveness_ Cake

Duncan

Perl	N	Subset 1	2	3	4
0%	5	.1240			
15%	5		.1340		
30%	5			.1560	
45%	5				.1840
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed. Based on Type III Sum of Squares The error term is Mean Square(Error) = .000.

a Uses Harmonic Mean Sample Size = 5.000.

b Alpha = .05.

springiness_ Cake

Duncan

Perl	N	Subset 1	2	3	4
0%	5	4.2380			
15%	5		4.7500		
30%	5			5.1660	
45%	5				6.5300
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed. Based on Type III Sum of Squares The error term is Mean Square(Error) = .029.

a Uses Harmonic Mean Sample Size = 5.000.

b Alpha = .05.

chewiness_ Cake

Duncan

Perl	N	Subset 1	2	3	4
0%	5	1.0640			
15%	5		1.4320		
30%	5			1.7740	
45%	5				2.0940
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed. Based on Type III Sum of Squares The error term is Mean Square(Error) = .002.

a Uses Harmonic Mean Sample Size = 5.000.

b Alpha = .05.

L_ *Cake*

Duncan

Perl	N	Subset 1	2	3	4
45%	5	65.3060			
30%	5		66.4540		
15%	5			68.4680	
0%	5				77.3720
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed. Based on Type III Sum of Squares The error term is Mean Square(Error) = .125.
a Uses Harmonic Mean Sample Size = 5.000.
b Alpha = .05.

b_ *Cake*

Duncan

Perl	N	Subset 1	2	3	4
45%	5	34.5300			
30%	5		35.4460		
15%	5			38.1400	
0%	5				42.6120
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed. Based on Type III Sum of Squares The error term is Mean Square(Error) = .044.
a Uses Harmonic Mean Sample Size = 5.000.
b Alpha = .05.

vol_pengembangan_ *Cake*

Duncan

Perl	N	Subset 1	2	3	4
45%	5	63.6180			
30%	5		83.5140		
15%	5			101.8280	
0%	5				121.4880
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed. Based on Type III Sum of Squares The error term is Mean Square(Error) = 1.681.
a Uses Harmonic Mean Sample Size = 5.000.
b Alpha = .05.

bakingloss_ *Cake*

Duncan

Perl	N	Subset for alpha = .05 1	2	3	4

0%	5	7.1680			
15%	5		7.6721		
30%	5			8.1780	
45%	5				8.6940
Sig.		1.000	1.000	1.000	1.000

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 5.000.

Lampiran 6. Uji Sensori Ranking dan Rating pada *Sponge cake*

UJI RANKING

RANKING AROMA

1 – 2

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,633
	Positive	,067
	Negative	-,633
Kolmogorov-Smirnov Z		2,453
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

1 – 3

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,700
	Positive	,000
	Negative	-,700
Kolmogorov-Smirnov Z		2,711
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

1 – 4

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,800
	Positive	,000
	Negative	-,800
Kolmogorov-Smirnov Z		3,098
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

2 – 4

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,700
	Positive	,000
	Negative	-,700
Kolmogorov-Smirnov Z		2,711
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

2 – 3

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,600
	Positive	,000
	Negative	-,600
Kolmogorov-Smirnov Z		2,324
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

3 – 4

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,133
	Positive	,133
	Negative	,000
Kolmogorov-Smirnov Z		,516
Asymp. Sig. (2-tailed)		,952

a Grouping Variable: Perlakuan

RANKING WARNA

1-2

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,833
	Positive	,033
	Negative	-,833
Kolmogorov-Smirnov Z		3,227
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

1-3

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,867
	Positive	,000
	Negative	-,867
Kolmogorov-Smirnov Z		3,357
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

1-4

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,900
	Positive	,000
	Negative	-,900
Kolmogorov-Smirnov Z		3,486
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

2-4

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,867
	Positive	,000
	Negative	-,867
Kolmogorov-Smirnov Z		3,357
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

2-3

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,700
	Positive	,000
	Negative	-,700
Kolmogorov-Smirnov Z		2,711
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

3-4

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,767
	Positive	,767
	Negative	,000
Kolmogorov-Smirnov Z		2,969
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

Ranking TEKSTUR

1-2

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,533
	Positive	,000
	Negative	-,533
Kolmogorov-Smirnov Z		2,066
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

1-3

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,933
	Positive	,000
	Negative	-,933
Kolmogorov-Smirnov Z		3,615
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

1-4

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,967
	Positive	,000
	Negative	-,967
Kolmogorov-Smirnov Z		3,744
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

2-4

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,900
	Positive	,000
	Negative	-,900
Kolmogorov-Smirnov Z		3,486
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

2-3

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,867
	Positive	,000
	Negative	-,867
Kolmogorov-Smirnov Z		3,357
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

3-4

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,667
	Positive	,667
	Negative	,000
Kolmogorov-Smirnov Z		2,582
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

Ranking RASA

1-2

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,667
	Positive	,000
	Negative	-,667
Kolmogorov-Smirnov Z		2,582
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

1-3

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,800
	Positive	,000
	Negative	-,800
Kolmogorov-Smirnov Z		3,098
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

1-4

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,733
	Positive	,000
	Negative	-,733
Kolmogorov-Smirnov Z		2,840
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

2-4

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,567
	Positive	,000
	Negative	-,567
Kolmogorov-Smirnov Z		2,195
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

2-3

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,633
	Positive	,000
	Negative	-,633
Kolmogorov-Smirnov Z		2,453
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

3-4

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,367
	Positive	,367
	Negative	-,067
Kolmogorov-Smirnov Z		1,420
Asymp. Sig. (2-tailed)		,035

a Grouping Variable: Perlakuan

Ranking OVERALL

1-2

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,700
	Positive	,000
	Negative	-,700
Kolmogorov-Smirnov Z		2,711
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

1-3

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,933
	Positive	,000
	Negative	-,933
Kolmogorov-Smirnov Z		3,615
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

1-4

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,933
	Positive	,000
	Negative	-,933
Kolmogorov-Smirnov Z		3,615
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

2-4

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,900
	Positive	,000
	Negative	-,900
Kolmogorov-Smirnov Z		3,486
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

2-3

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,900
	Positive	,000
	Negative	-,900
Kolmogorov-Smirnov Z		3,486
Asymp. Sig. (2-tailed)		,000

a Grouping Variable: Perlakuan

3-4

Test Statistics(a)

		Ranking
Most Extreme Differences	Absolute	,433
	Positive	,433
	Negative	,000
Kolmogorov-Smirnov Z		1,678
Asymp. Sig. (2-tailed)		,007

a Grouping Variable: Perlakuan

UJI RATING

Rating AROMA

1-2

Test Statistics(a)

	rating
Mann-Whitney U	407,000
Wilcoxon W	872,000
Z	-,703
Asymp. Sig. (2-tailed)	,482

a Grouping Variable: perlakuan

1-3

Test Statistics(a)

	rating
Mann-Whitney U	349,000
Wilcoxon W	814,000
Z	-1,654
Asymp. Sig. (2-tailed)	,098

a Grouping Variable: perlakuan

1-4

Test Statistics(a)

	rating
Mann-Whitney U	244,000
Wilcoxon W	709,000
Z	-3,195
Asymp. Sig. (2-tailed)	,001

a Grouping Variable: perlakuan

2-4

Test Statistics(a)

	rating
Mann-Whitney U	250,500
Wilcoxon W	715,500
Z	-3,100
Asymp. Sig. (2-tailed)	,002

a Grouping Variable: perlakuan

2-3

Test Statistics(a)

	rating
Mann-Whitney U	392,000
Wilcoxon W	857,000
Z	-,974
Asymp. Sig. (2-tailed)	,330

a Grouping Variable: perlakuan

3-4

Test Statistics(a)

	rating
Mann-Whitney U	272,000
Wilcoxon W	737,000
Z	-2,824
Asymp. Sig. (2-tailed)	,005

a Grouping Variable: perlakuan

Rating WARNA

1-2

Test Statistics(a)

	Rating
Mann-Whitney U	231,000
Wilcoxon W	696,000
Z	-3,547
Asymp. Sig. (2-tailed)	,000

a Grouping Variable: Perlakuan

1-3

Test Statistics(a)

	Rating
Mann-Whitney U	114,000
Wilcoxon W	579,000
Z	-5,300
Asymp. Sig. (2-tailed)	,000

a Grouping Variable: Perlakuan

1-4

Test Statistics(a)

	Rating
Mann-Whitney U	63,000
Wilcoxon W	528,000
Z	-6,024
Asymp. Sig. (2-tailed)	,000

a Grouping Variable: Perlakuan

2-4

Test Statistics(a)

	Rating
Mann-Whitney U	124,000
Wilcoxon W	589,000
Z	-5,001
Asymp. Sig. (2-tailed)	,000

a Grouping Variable: Perlakuan

Rating TEKSTUR

1-2

Test Statistics(a)

	rating
Mann-Whitney U	378,000
Wilcoxon W	843,000
Z	-1,412
Asymp. Sig. (2-tailed)	,158

a Grouping Variable: perlakuan

1-3

Test Statistics(a)

	rating
Mann-Whitney U	351,000
Wilcoxon W	816,000
Z	-1,869
Asymp. Sig. (2-tailed)	,062

a Grouping Variable: perlakuan

1-4

Test Statistics(a)

	rating
Mann-Whitney U	53,000
Wilcoxon W	518,000
Z	-6,220
Asymp. Sig. (2-tailed)	,000

a Grouping Variable: perlakuan

2-4

Test Statistics(a)

	rating
Mann-Whitney U	56,000
Wilcoxon W	521,000
Z	-6,086
Asymp. Sig. (2-tailed)	,000

a Grouping Variable: perlakuan

2-3

Test Statistics(a)

	rating
Mann-Whitney U	426,000
Wilcoxon W	891,000
Z	-,423
Asymp. Sig. (2-tailed)	,672

a Grouping Variable: perlakuan

3-4

Test Statistics(a)

	rating
Mann-Whitney U	51,000
Wilcoxon W	516,000
Z	-6,145
Asymp. Sig. (2-tailed)	,000

a Grouping Variable: perlakuan

Rating RASA

1-2

Test Statistics(a)

	rating
Mann-Whitney U	283,500
Wilcoxon W	748,500
Z	-3,074
Asymp. Sig. (2-tailed)	,002

a Grouping Variable: perlakuan

1-3

Test Statistics(a)

	rating
Mann-Whitney U	125,000
Wilcoxon W	590,000
Z	-5,281
Asymp. Sig. (2-tailed)	,000

a Grouping Variable: perlakuan

1-4

Test Statistics(a)

	rating
Mann-Whitney U	55,000
Wilcoxon W	520,000
Z	-6,275
Asymp. Sig. (2-tailed)	,000

a Grouping Variable: perlakuan

2-4

Test Statistics(a)

	rating
Mann-Whitney U	83,000
Wilcoxon W	548,000
Z	-5,619
Asymp. Sig. (2-tailed)	,000

a Grouping Variable: perlakuan

2-3

Test Statistics(a)

	rating
Mann-Whitney U	221,500
Wilcoxon W	686,500
Z	-3,630
Asymp. Sig. (2-tailed)	,000

a Grouping Variable: perlakuan

3-4

Test Statistics(a)

	rating
Mann-Whitney U	225,000
Wilcoxon W	690,000
Z	-3,480
Asymp. Sig. (2-tailed)	,001

a Grouping Variable: perlakuan

Rating OVERALL

1-2

Test Statistics(a)

	rating
Mann-Whitney U	411,000
Wilcoxon W	876,000
Z	-,695
Asymp. Sig. (2-tailed)	,487

a Grouping Variable: perlakuan

1-3

Test Statistics(a)

	rating
Mann-Whitney U	421,000
Wilcoxon W	886,000
Z	-,521
Asymp. Sig. (2-tailed)	,602

a Grouping Variable: perlakuan

	rating
Mann-Whitney U	441,000
Wilcoxon W	906,000
Z	-,157
Asymp. Sig. (2-tailed)	,875

a Grouping Variable: perlakuan

3-4

Test Statistics(a)

	rating
Mann-Whitney U	67,000
Wilcoxon W	532,000
Z	-5,885
Asymp. Sig. (2-tailed)	,000

a Grouping Variable: perlakuan

1-4

Test Statistics(a)

	rating
Mann-Whitney U	59,000
Wilcoxon W	524,000
Z	-6,025
Asymp. Sig. (2-tailed)	,000

a Grouping Variable: perlakuan

2-4

Test Statistics(a)

	rating
Mann-Whitney U	63,000
Wilcoxon W	528,000
Z	-5,955
Asymp. Sig. (2-tailed)	,000

a Grouping Variable: perlakuan

Lampiran 7. *Worksheet* Uji Rating Hedonik *Sponge cake*

***Worksheet* Uji Rating Hedonik**

Tanggal uji :

Jenis sampel : *Sponge cake* dengan Substitusi Tepung Ubi sebagai Pengganti Gula

Identifikasi sampel	**Kode**
Sponge cake dengan 100% Tepung Terigu (Kontrol)	A
Sponge cake dengan substitusi 15% Tepung Ubi	B
Sponge cake dengan substitusi 30% Tepung Ubi	C
Sponge cake dengan substitusi 45% Tepung Ubi	D

Kode kombinasi urutan penyajian :

ABCD = 1	ACDB = 6	BDAC = 11	CBDA = 16	DBCA = 21	ABDC = 26
ABDC = 2	BACD = 7	BDCA = 12	CDAB = 17	DBAC = 22	ACBD = 27
ADCB = 3	BADC = 8	CABD = 13	CDBA = 18	DCAB = 23	ACDB = 28
ADBC = 4	BCAD = 9	CADB = 14	DABC = 19	DCBA = 24	CABD = 29
ACBD = 5	BCDA = 10	CBAD = 15	DACB = 20	ABCD = 25	CADB =30

Penyajian :

Booth	**Panelis**	**Kode sampel** Urutan penyajian
I	#1, #6, #11, #16, #21, #26	133 946 554 129^{1}
II	#2, #7, #12, #17, #22, #27	287 282 624 259^{2}
III	#3, #8, #13, #18, #23, #28	233 299 923 889^{3}
IV	#4, #9, #14, #19, #24, #29	174 671 982 594^{4}
V	#5, #10, #15, #20, #25, #30	951 977 193 128^{5}

Rekap kode sampel :

Sampel A	133 287 233 174 951
Sampel B	946 282 889 982 193
Sampel C	554 259 923 594 977
Sampel D	129 624 299 671 128

Lampiran 8. *Scoresheet* Uji Rating Hedonik *Sponge cake*

UJI RATING HEDONIK

Nama : Tanggal uji :

Produk : *Sponge cake* dengan Substitusi Tepung Ubi sebagai Pengganti Gula

Atribut : Tekstur

Instruksi :
Berkumur-kumurlah dulu sebelum menguji sampel.
Di hadapan Anda terdapat 4 sampel *Sponge cake*. Cicipi sampel secara berurutan dari kiri ke kanan. Anda boleh mengulang sesering yang Anda perlukan. Sebelum berganti sampel, berkumurlah dahulu. Berikan nilai sampel dari yang paling Anda sukai (=4) hingga sampel yang paling tidak Anda sukai (=1). Antar sampel boleh memiliki nilai yang sama dan jangan membandingkan antar sampel

Kode sampel	Rating (boleh kembar)
.....	.....
.....	.....
.....	.....
.....	.....

Terima kasih

UJI RATING HEDONIK

Nama : Tanggal uji :

Produk : *Sponge cake* dengan Substitusi Tepung Ubi sebagai Pengganti Gula

Atribut : Rasa

Instruksi :
Berkumur-kumurlah dulu sebelum menguji sampel.
Di hadapan Anda terdapat 4 sampel *Sponge cake*. Cicipi sampel secara berurutan dari kiri ke kanan. Anda boleh mengulang sesering yang Anda perlukan. Sebelum berganti sampel, berkumurlah dahulu. Berikan nilai sampel dari yang paling Anda sukai (=4) hingga sampel yang paling tidak Anda sukai (=1). Antar sampel boleh memiliki nilai yang sama dan jangan membandingkan antar sampel

Kode sampel	Rating (boleh kembar)
.....	.....
.....	.....
.....	.....
.....	.....

Terima kasih

UJI RATING HEDONIK

Nama : Tanggal uji :

Produk : *Sponge cake* dengan Substitusi Tepung Ubi sebagai Pengganti Gula

Atribut : Aroma

Instruksi :

Di hadapan Anda terdapat 4 sampel *Sponge cake*. Amati bau sampel secara berurutan dari kiri ke kanan. Berikan nilai sampel dari yang paling Anda sukai (=4) hingga sampel yang paling tidak Anda sukai (=1). Antar sampel boleh memiliki nilai yang sama dan jangan membandingkan antar sampel

Kode sampel	Rating (boleh kembar)
.....	.....
.....	.....
.....	.....
.....	.....

Terima kasih

UJI RATING HEDONIK

Nama : Tanggal uji :

Produk : *Sponge cake* dengan Substitusi Tepung Ubi sebagai Pengganti Gula

Atribut : Warna

Instruksi :

Di hadapan Anda terdapat 4 sampel *Sponge cake*. Amati warna sampel secara berurutan dari kiri ke kanan. Berikan nilai sampel dari yang paling Anda sukai (=4) hingga sampel yang paling tidak Anda sukai (=1). Antar sampel boleh memiliki nilai yang sama dan jangan membandingkan antar sampel

Kode sampel	Rating (boleh kembar)
.....	.....
.....	.....
.....	.....
.....	.....

Terima kasih

UJI RATING HEDONIK

Nama : Tanggal uji :

Produk : *Sponge cake* dengan Substitusi Tepung Ubi sebagai Pengganti Gula

Atribut : *Overall*

Instruksi :

Berkumur-kumurlah dulu sebelum menguji sampel.

Di hadapan Anda terdapat 4 sampel *Sponge cake*. Cicipi sampel secara berurutan dari kiri ke kanan. Anda boleh mengulang sesering yang Anda perlukan. Sebelum berganti sampel, berkumurlah dahulu. Berikan nilai sampel dari yang paling Anda sukai (=4) hingga sampel yang paling tidak Anda sukai (=1). Antar sampel boleh memiliki nilai yang sama dan jangan membandingkan antar sampel

Kode sampel	Rating (boleh kembar)
.....	.....
.....	.....
.....	.....
.....	.....

Terima kasih

Lampiran 9. *Worksheet* Uji Ranking Hedonik *Sponge cake*

***Worksheet* Uji Ranking Hedonik**

Tanggal uji :

Jenis sampel : *Sponge cake* dengan Substitusi Tepung Ubi sebagai Pengganti Gula

Identifikasi sampel	**Kode**
Sponge cake dengan 100% Tepung Terigu (Kontrol)	A
Sponge cake dengan substitusi 15% Tepung Ubi	B
Sponge cake dengan substitusi 30% Tepung Ubi	C
Sponge cake dengan substitusi 45% Tepung Ubi	D

Kode kombinasi urutan penyajian :

ABCD = 1	ACDB = 6	BDAC = 11	CBDA = 16	DBCA = 21	ABDC = 26
ABDC = 2	BACD = 7	BDCA = 12	CDAB = 17	DBAC = 22	ACBD = 27
ADCB = 3	BADC = 8	CABD = 13	CDBA = 18	DCAB = 23	ACDB = 28
ADBC = 4	BCAD = 9	CADB = 14	DABC = 19	DCBA = 24	CABD = 29
ACBD = 5	BCDA = 10	CBAD = 15	DACB = 20	ABCD = 25	CADB =30

Penyajian :

Booth	**Panelis**	**Kode sampel** Urutan penyajian
I	#1, #6, #11, #16, #21, #26	121 937 554 129[1]
II	#2, #7, #12, #17, #22, #27	227 252 624 259[2]
III	#3, #8, #13, #18, #23, #28	239 299 923 889[3]
IV	#4, #9, #14, #19, #24, #29	184 671 982 594[4]
V	#5, #10, #15, #20, #25, #30	958 977 193 128[5]

Rekap kode sampel :

Sampel A	121 227 239 184 958
Sampel B	937 282 889 982 193
Sampel C	554 259 923 594 977
Sampel D	129 624 299 671 128

Lampiran 10. *Scoresheet* Uji Ranking Hedonik *Sponge cake*

UJI RANKING HEDONIK

Nama : Tanggal uji :

Produk : *Sponge cake* dengan Substitusi Tepung Ubi sebagai Pengganti Gula

Atribut : Tekstur

Instruksi :
Berkumur-kumurlah dulu sebelum menguji sampel.
Di hadapan Anda terdapat 4 sampel *Sponge cake*. Cicipi sampel secara berurutan dari kiri ke kanan. Anda boleh mengulang sesering yang Anda perlukan. Sebelum berganti sampel, berkumurlah dahulu. Berikan nilai sampel dari yang paling Anda sukai (=4) hingga sampel yang paling tidak Anda sukai (=1).

Kode sampel	Ranking
.....	.....
.....	.....
.....	.....
.....	.....

Terima kasih

UJI RANKING HEDONIK

Nama : Tanggal uji :

Produk : *Sponge cake* dengan Substitusi Tepung Ubi sebagai Pengganti Gula

Atribut : Rasa

Instruksi :
Berkumur-kumurlah dulu sebelum menguji sampel.
Di hadapan Anda terdapat 4 sampel *Sponge cake*. Cicipi sampel secara berurutan dari kiri ke kanan. Anda boleh mengulang sesering yang Anda perlukan. Sebelum berganti sampel, berkumurlah dahulu. Berikan nilai sampel dari yang paling Anda sukai (=4) hingga sampel yang paling tidak Anda sukai (=1).

Kode sampel	Ranking
.....	.....
.....	.....
.....	.....
.....	.....

Terima kasih

UJI RANKING HEDONIK

Nama : Tanggal uji :

Produk : *Sponge cake* dengan Substitusi Tepung Ubi sebagai Pengganti Gula

Atribut : Aroma

Instruksi :

Di hadapan Anda terdapat 4 sampel *Sponge cake*. Amati bau sampel secara berurutan dari kiri ke kanan. Berikan nilai sampel dari yang paling Anda sukai (=4) hingga sampel yang paling tidak Anda sukai (=1).

Kode sampel	Ranking
.....	.....
.....	.....
.....	.....
.....	.....

Terima kasih

UJI RANKING HEDONIK

Nama : Tanggal uji :

Produk : *Sponge cake* dengan Substitusi Tepung Ubi sebagai Pengganti Gula

Atribut : Warna

Instruksi :

Di hadapan Anda terdapat 4 sampel *Sponge cake*. Amati warna sampel secara berurutan dari kiri ke kanan. Berikan nilai sampel dari yang paling Anda sukai (=4) hingga sampel yang paling tidak Anda sukai (=1).

Kode sampel	Ranking
.....	.....
.....	.....
.....	.....
.....	.....

Terima kasih

UJI RANKING HEDONIK

Nama : Tanggal uji :

Produk : *Sponge cake* dengan Substitusi Tepung Ubi sebagai Pengganti Gula

Atribut : *Overall*

Instruksi :

Berkumur-kumurlah dulu sebelum menguji sampel.

Di hadapan Anda terdapat 4 sampel *Sponge cake*. Cicipi sampel secara berurutan dari kiri ke kanan. Anda boleh mengulang sesering yang Anda perlukan. Sebelum berganti sampel, berkumurlah dahulu. Berikan nilai sampel dari yang paling Anda sukai (=4) hingga sampel yang paling tidak Anda sukai (=1).

Kode sampel	Ranking
.....	.....
.....	.....
.....	.....
.....	.....

Terima kasih

Lampiran 11. Analisa Korelasi

		tekstur_ratting		TEKSTUR_RANKING	
hardness	Correlation Coefficient	-0.194	*	-0.180	*
	Sig. (2-tailed)	0.042		0.047	
	N	95.000		95.000	
cohesiveness	Correlation Coefficient	-0.188	**	-0.183	*
	Sig. (2-tailed)	0.050		0.044	
	N	95.000		95.000	
springiness	Correlation Coefficient	-0.190	*	-0.181	*
	Sig. (2-tailed)	0.047		0.045	
	N	95.000		95.000	
chewiness	Correlation Coefficient	-0.195	*	-0.183	*
	Sig. (2-tailed)	0.041		0.043	
	N	95.000		95.000	

		Gula	
rasa_ratting	Correlation Coefficient	-0.187	**
	Sig. (2-tailed)	0.043	
	N	95.000	
RASA_RANKING	Correlation Coefficient	-0.100	**
	Sig. (2-tailed)	0.265	
	N	95.000	
aroma_ratting	Correlation Coefficient	-0.031	**
	Sig. (2-tailed)	0.740	
	N	95.000	
AROMA_RANKING	Correlation Coefficient	-0.085	**
	Sig. (2-tailed)	0.345	
	N	95.000	

		Betakaroten		btrans	
warna_ratting	Correlation Coefficient	-0.255	*	-0.158	**
	Sig. (2-tailed)	0.005		0.081	
	N	95.000		95.000	
WARNA_RANKING	Correlation Coefficient	-0.192	*	-0.080	**
	Sig. (2-tailed)	0.033		0.378	
	N	95.000		95.000	